Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-2. (Canceled)

3. (Currently Amended) ~~The power supply according to claim 2, wherein said transformer (T) has a third winding (n3), and~~

~~said drive-control voltage supply section (8)~~

~~comprises:~~

A power supply comprising:

a transformer (T) having a primary winding, a secondary winding and a third winding;

a DC voltage input section (2) which receives an AC voltage and applies a DC voltage that is said input AC voltage rectified and smoothed to said primary winding of said transformer (T);

a switching section (Q1) which generates a voltage on said primary winding of said transformer (T) by switching a current flowing in said primary winding of said transformer (T);

a rectifying and smoothing section (4) which rectifies and smoothes a voltage generated on said secondary winding of said transformer (T), and supplies the rectified, smoothed voltage to said load,

a drive control section (6) which supplies a pulse signal for said switching section (Q1) to switch said current to said switching section (Q1) as the drive signal, thereby driving and controlling said switching section (Q1);

a capacitor (C3) which applies a charged voltage to a power line of said drive control section (6) as the drive control voltage;

a charge circuit section (13, 14, R21) which supplies a current to said capacitor (C3) from said DC voltage input section (2) ~~of said voltage generating section (2, 3, 4)~~ to charge

said capacitor (C3) when said DC voltage input section (2) starts inputting a DC voltage to said primary winding of said transformer (T);

an auxiliary power supply section (7) which rectifies a voltage generated on said third winding (n3) of said transformer (T) and applies that voltage to said capacitor (C3) to charge said capacitor (C3);

a charge control section (17) which stops charging of said capacitor (C3) from said charge circuit section (13, 14, R21) when the drive control voltage to be supplied to said power line of said drive control section (6) becomes equal to or greater than a preset voltage value;

an operation stop section (15) which detects an output current to be supplied to said load, compares a current value of said detected output current with said preset current value, and stops an operation of said drive control section (6) when the current value of said detected output current becomes less than the preset current value; and

a time measuring section (16) which measures a time after said operation stop section (15) stops the operation of said drive control section (6), and outputs a switch-on signal to said charge control section (17) ~~and causes said charge control section (17) to resume charging said capacitor (C3)~~ when a preset time elapses since measuring, wherein said charge control section (17) resumes charging said capacitor from said charging circuit when said switch-on signal is output from said time measuring unit (16).

4. (Currently Amended) The power supply according to claim 3, wherein said charge circuit section is constituted by inserting, between said DC voltage input section (2) and one end of said capacitor (C3):

a constant current supply section (14) which supplies a constant current to said capacitor (C3); and

a switch (13) which is closed ~~at a time of activation~~ when said DC voltage input section starts inputting the DC voltage to said primary winding of said transformer.

5. (Currently Amended) The power supply according to claim 3, wherein said charge circuit section is constituted by inserting, between said DC voltage input section (2) and one end of said capacitor (C3):

a resistor (R21); and

a switch (13) which is closed at a time of activation when said DC voltage input section (2) starts inputting the DC voltage to said primary winding of said transformer (T).

6. (Currently Amended) The power supply according to claim 4, wherein said charge control section comprises a switch control section (17) which stops charging of said capacitor (C3) from said charge circuit section (13, 14, R21), and

said time measuring section (16) measures a time after said operation stop section (15) stops the operation of said drive control section (6), and outputs a switch-ON signal to close said switch (13) to said switch control section (17) when a preset time elapses since measuring[[,]] ~~thereby resuming charging of said capacitor (C3)~~.

7. (Currently Amended) The power supply according to claim 3, wherein a resistor (R22) is connected to both ends of said capacitor (C3), and

said time measuring section (16) considers that the preset time has elapsed when a voltage across said capacitor (C3) becomes equal to or lower than a predetermined value after said operation stop section (15) has stopped the operation of said drive control section (6), and ~~causes said switch control section (17) to resume charging of said capacitor (C3)~~ outputs said switch-on signal to said charge control section (17).

8. (Currently Amended) ~~The power supply according to claim 2, wherein said transformer (T) has a third winding (n3), and~~

~~said drive control voltage supply section~~

~~comprises:~~

A power supply comprising:

a transformer (T) having a primary winding, a secondary winding and a third winding;

a DC voltage input section (2) which receives an AC voltage and applies a DC

voltage that is said input AC voltage rectified and smoothed to said primary winding of said transformer (T);

a switching section (Q1) which generates a voltage on said primary winding of said transformer (T) by switching a current flowing in said primary winding of said transformer (T);

a rectifying and smoothing section (4) which rectifies and smoothes a voltage generated on said secondary winding of said transformer (T), and supplies the rectified, smoothed voltage to said load,

a drive control section (6) which supplies a pulse signal for said switching section (Q1) to switch said current to said switching section (Q1) as the drive signal, thereby driving and controlling said switching section (Q1)

a capacitor (C3) which applies a charged voltage to a power line of said drive control section (6) as the drive control voltage;

a charge circuit section (14, R21) which supplies a current to said capacitor (C3) from said DC voltage input section (2) ~~of said voltage generating section (2, 3, 4)~~ to charge said capacitor wherein said DC voltage input section (2) starts inputting a DC voltage to said primary winding of said transformer (T);

an auxiliary power supply section (7) which rectifies a voltage generated on said third winding (n3) of said transformer (T) and applies ~~that~~ the rectified voltage to said capacitor (C3) to charge said capacitor (C3);

an operation stop section (15) which detects an output current to be supplied to said load, compares a current value of said detected output current with said preset current value, and stops an operation of said drive control section (6) when the current value of said detected output current becomes less than the preset current value;

a discharge control section (13, 17) which discharges a voltage of said capacitor (C3) when a discharge instruction signal is supplied; and

a time measuring section (16) which supplies said discharge instruction signal to said discharge control section (13, 17) when said operation stop section (15) stops an operation

of said drive control section (6), and stops supplying the discharge instruction signal to said discharge control section (13, 17) when a preset time elapses after time measuring

wherein said discharge control unit (13, 17) causes said capacitor (C3) to discharge during the supply of the discharge signal from said time measuring section (16), and then causes the charge circuit section (14R, R21) to restart charging to said capacitor (C3).

9. (Currently Amended) The power supply according to claim 8, wherein said charge circuit section comprises a current supply section (14) which supplies a current to said capacitor (C3), and

said discharge control section comprises:

a switch (13) which is open at a time of activation when said DC voltage input section (2) starts inputting the DC voltage to said primary winding of said transformer (T); and

a switch control section (17) which closes said switch (13) to discharge the voltage of said capacitor (C3), when said operation stop section (15) stops the operation of said drive control section (6).

10. (Currently Amended) The power supply according to claim 8, wherein said charge circuit section comprises a resistor (R21) inserted between said DC voltage input section (2) and said capacitor (C3), and

said discharge control section comprises:

a switch (13) which is open ~~at a time of activation~~ when said DC voltage input section (2) starts inputting the DC voltage to said primary winding of said transformer (T); and

a switch control section (17) which closes said switch (13) to discharge the voltage of said capacitor (C3), when said operation stop section (15) stops the operation of said drive control section (6).

11. (Previously Presented) A controlling method for a power supply including a voltage generating section (2, 3, 4) which generates an output voltage to be supplied to a load in accordance with a drive signal, and a drive control section (6) which is activated upon a drive control voltage being applied to a power supply line and said drive control voltage exceeding a preset value, generates said drive control signal in accordance with a signal indicating the output

voltage and supplies said generated drive signal to said voltage generating section (2, 3, 4) to drive said voltage generating section (2, 3, 4) to supply the output voltage to the load, wherein upon startup of said power supply, said drive control voltage is applied to said power supply line of said drive control section (6) to activate said drive control section (6) to supply the output voltage to said load from said voltage generating section (2, 3, 4), a current flowing in the load is monitored, generation of said drive signal by said drive control section (6) is stopped and by lowering said drive control voltage, operation of said drive control section (6) is stopped when said current becomes less than a preset current value, and after a predetermined time elapses since stopping of the operation of said drive control section, said drive control voltage is raised to reactivate said drive control section (6).